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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,737	12/17/2003	Felicia Massetti	246707US6X	5615

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EXAMINER	
CHAUDHRY, SAEED T	

ART UNIT	PAPER NUMBER
1746	

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/736,737	MASSETTI ET AL.	
	Examiner	Art Unit	
	Saeed T. Chaudhry	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's amendments, terminal disclaimer and remarks filed March 10, 2006 have been acknowledged by the examiner and entered. Claim 2 has been canceled and claims 1 and 3-16 are pending in this application for consideration.

The Specification

The disclosure is objective to because of the following informalities:

The specification is still missing the brief description of the drawings, since with the original disclosure three figures were submitted and only one figure is described in the amendments filed in March 10, 2006, which is also, incorrect since the Figure is not a schematic block diagram. The applicant is advised that all the three Figures should be separately described. Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 1 and 3-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim 1 contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1, recite a limitation "causing a separation of an oily fraction at a pressure ranging from 30 to 60 bar" is not disclosed in the originally filed specification, even though the cancelled claim had a limitation of "30 to 65 bar", which is different than the instant claimed limitation.

New ground of rejections

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (c) he has abandoned the invention.
> (d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States.
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.
> (f) he did not himself invent the subject matter sought to be patented.
> (g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

Claims 1, 3, 8, 10, 11 and 14 are rejected under 35 U.S.C. § 102(b) as being anticipated by Tunnicliffe et al.

Tunnicliffe et al (2002/0144717) disclose a method for decontamination of oily cuttings by contacting the cuttings with a solvent in chamber 118 and increasing the pressure and temperature of the chamber (see [0082-0084]) and allowed to separate into an organic phase and an aqueous phase, followed by removal of extracted oil/contaminants as a solution, followed by recovery of an oily fraction and carbon dioxide vapor phase. The reference disclose that during the downstream, separation phase of the process gaseous carbon dioxide is taken out of the separator 138. The reference discloses to use the pressure and temperature range as the claimed process (see [0048-0050]).

The present invention provides a method for cleaning a solid material including contacting the mixture with a cleaning composition including CO, CO_2, H_2O, lower alcohols, lower alkanes, lower alkenes or mixtures or combinations thereof under conditions of temperature and pressure sufficient to maintain the cleaning composition at, near or above its critical point for a time sufficient to achieve a desired degree of cleaning of the solid material (see [0011]). The term, "near critical," "near critical state," "near critical conditions" or "near critical conditions of temperature and pressure," refers to a solvent at most about 10.degree. C. below its critical temperature, Tc, and at most about 10 psi below its critical pressure, Pc, and preferably, at most about 5.degree. C. below its critical temperature, Tc, and at most about 5 psi below its critical pressure, Pc (see [0039]).

Carbon dioxide is used in the extraction solvent composition, then any of the previously described installation can be equipped with a low temperature separator for separating carbon dioxide out of the atmosphere. Additionally, the apparatus can have recycling equipped to recover the extraction solvent for recycling. The pump type used in the following examples was a Milton Roy 100 ml/hour max, positive displacement pump. The samples used in the following examples was a sample as received from Baker Hughes and was centrifuged cuttings from well fluids (see [0078-0079]).

In the embodiment of the process of Tunnicliffe et al the carbon dioxide is in a near-critical state, it will inherently comprises liquid carbon dioxide. Since the claimed pressure is 45 to 80 bars. In Example 2, Tunnicliffe et al process operate at 1000 psi which is 68.95 bars and in the pressure range as claimed herein for mixing the oily cuttings with the extraction solvent. Further, Tunnicliffe et al disclose to reduce the pressure with two valves 776 a & b for

separating extraction fluid from the oils in separator 774 (see [0070]). The reference do not specify the pressure range of 30 to 60 bar. But the pressure is reduced from the 1000 psi (68.95 bars) with valves for separating oils and extraction liquid in separator 774. Therefore it is expected that inherently this range of separating with 30 to 60 bar has been met by the Tunnicliffe et al. Tunnicliffe et al disclose all the limitations as claimed here. Therefore, Tunnicliffe et al anticipated the claimed process.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> The factual inquiries set forth in Graham v. John Deere Co., 148 USPQ 459, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
>
> 1. Determining the scope and contents of the prior art.
> 2. Ascertaining the differences between the prior art and the claims at issue.
> 3. Resolving the level of ordinary skill in the pertinent art.
> 4. Considering objective evidence present in the application indicating obviousness or unobviousness.

Claims 4-7, 9, 12-13 and 15-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tunnicliffe et al.

Tunnicliffe et al were discussed supra. However, the reference fails to disclose specific ratio of the solvent to the cutting, or mixing a inert material or a cyclone separator.

It would have been obvious at the time applicant invented the claimed process to include a cyclone separator or more than one separator because it is well known in the art that by using multiple separator would give better results. Further, one of ordinary skill in the art would include inert material with the oil cutting to reduce the consistency of the oil cutting to react with the compressible solvent so that the oil cutting would fully react with the solvent to produce

cleaned cuttings. Further, distillation is notoriously well known process used for the recovery and reclamation of solvents. Therefore, it would have been obvious and within the level of the skilled artesian to have modified the method of Tunnicliffe et al to include distillation, since distillation is notoriously well known process and conventionally used in the recovery and reclamation of solvents. Furthermore, volumetric compressor are known in the art to measure the volume of the liquid. Therefore, one of ordinary skill in the art would include a volumetric compressor to measure the accurate volume of the solvent for the purpose of accurate reaction parameters.

By optimizing the temperature by conducting routine experimentation of a result effective variable (MPEP 2144.05). Furthermore, where the general conditions of a claims are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. (In re Aller F.2d 454, 456, 105 USPQ 233, 235(CCPA 1955)).

Response to Applicant's Arguments

Applicant argued that Tunnicliffe et al, hydrocarbon materials are cleaned by a cleaning solvent under critical and supercritical conditions. As shown in the Table after paragraph 0037 of Tunnicliffe et al, the critical pressure of carbon dioxide is 7.375 Mpa, which is 73.75 bar. Therefore, Tunnicliffe et al do not disclose or render obvious the above discussed features recited in independent claim.

These arguments are not persuasive because Tunnicliffe et al disclose that the term, "near critical," "near critical state," "near critical conditions" or "near critical conditions of temperature and pressure," refers to a solvent at most about 10.degree. C. below its critical temperature, Tc, and at most about 10 psi below its critical pressure, Pc, and preferably, at most about 5.degree. C. below its critical temperature, Tc, and at most about 5 psi below its critical pressure, Pc (see [0039]). Therefore, the claimed ranges are within the range of the Tunnicliffe et al disclosed

ranges. Further, claimed range is upto 80 bar and Tunnicliffe et al range is 73.75 bar (7,375 Mpa), which is within the claimed range.

Applicant's amendment necessitated the new grounds of rejection. Accordingly, THIS ACTION IS MADE FINAL. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saeed T. Chaudhry whose telephone number is (571) 272-1298. The examiner can normally be reached on Monday-Friday from 9:30 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Barr, can be reached on (571)-272-1414. The fax phone number for non-final is (703)-872-9306.

When filing a FAX in Gp 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1700.

Saeed T. Chaudhry
Patent Examiner

MICHAEL BARR
SUPERVISORY PATENT EXAMINER